



Contribution ID: 1161

Type: **Parallel Talk**

New results from the DANSS experiment

Friday, 8 July 2022 10:30 (15 minutes)

New results of the DANSS experiment on the searches for sterile neutrinos are presented. They are based on more than 6 million inverse beta decay events collected at 10.9, 11.9, and 12.9 meters from the 3.1 GW reactor core of the Kalinin Nuclear Power Plant in Russia. A new more robust method of energy calibration is used. Different statistical approaches are compared. The neutrino spectrum dependence on the ^{239}Pu fission fraction is presented. The reactor power was measured using the IBD event rate during 5.5 years with a statistical accuracy of 1.5% in 2 days and with the relative systematic uncertainty of about 0.5%. The status of the DANSS upgrade will be presented. This upgrade should allow DANSS to test the Neutrino-4 claim of observation of sterile neutrinos and to scrutinize even larger fraction of the sterile neutrino parameter space preferred by the recent BEST results. The cosmic muon flux dependences on temperature and pressure are presented.

In-person participation

Yes

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